

DOCUMENT RESUME

ED 447 423

CS 014 117

TITLE Cooperative Integrated Reading and Composition (CIRC).
INSTITUTION Education Commission of the States, Denver, CO.
PUB DATE 1999-00-00
NOTE 7p.
AVAILABLE FROM Education Commission of the States, 707 17th St., #2700, Denver, CO 80202-3427. Tel: 303-299-3600; Web site: <http://www.ecs.org>.
PUB TYPE Information Analyses (070) -- Reports - Descriptive (141)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Bilingual Education Programs; Bilingual Instructional Materials; *Cooperative Learning; Elementary Education; *Instructional Effectiveness; Instructional Materials; Integrated Activities; *Program Content; Program Descriptions; *Reading Instruction; Reading Programs; Reading Research; *Writing Instruction

ABSTRACT

This paper provides an overview of the Cooperative Integrated Reading and Composition (CIRC) program, a comprehensive approach to reading and writing instruction for grades K-8, as well as its Spanish adaptation, Bilingual Cooperative Integrated Reading and Composition (BCIRC). The program's goal is to improve student achievement in reading, writing, and comprehension by emphasizing cooperative partner and group activities, clear learning goals, and individual assessment. Main features of CIRC include: (1) grouping and teaming (with students of varying reading abilities working together in teams, including mainstreamed, academically handicapped, and Title 1 students); (2) basal-related activities consisting of direct instruction in reading comprehension, story-related activities, and integrated language arts/writing; (3) tests (with tests on story reading, on writing, and of oral reading, to gauge individual and team performance); and (4) students read a book of their choice and complete a book report every two weeks. CIRC is used in approximately 1,000 sites across the United States and Canada. Sections of this paper discuss background, philosophy and goals, program components, evidence of effectiveness, professional development and support, implementation, costs, considerations, contact information, and policy issues and questions. (SR)

Cooperative Integrated Reading and composition
(CIRC).

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Cooperative Integrated Reading and Composition (CIRC)

Background - Philosophy and Goals - Program Components - Evidence of Effectiveness
Professional Development and Support - Implementation - Costs - Considerations
Policy Issues and Questions - Resources

Topic or Category: Reading

Grade Level: K-8

Target Population: General, At-Risk, Bilingual

OVERVIEW

Background and Scope:

Cooperative Integrated Reading and Composition (CIRC) is a comprehensive approach to reading and writing instruction for grades 2-8. Developed between 1986-88 in a collaborative effort between Johns Hopkins University and public schools, CIRC is based on cooperative learning research the university began in 1970. In 1987, research and development was started on the program's Spanish adaptation, Bilingual Cooperative Integrated Reading and Composition (BCIRC). CIRC now operates in about 1,000 schools across the nation.

Philosophy and Goals:

CIRC's goal is to improve student achievement in reading, writing and comprehension by emphasizing cooperative partner and group activities, clear learning goals and individual assessment.

Program Components:

CIRC is available as a stand-alone program, in a bilingual version and as a component of the schoolwide restructuring program, Success for All (see entry in the comprehensive school reform section of this database).

Most CIRC activities follow a sequence of instruction that includes: (a) teacher-directed instruction, (b) pair/team practice, (c) individual practice, (d) peer pre-assessment, (e) individual assessment and (f) team recognition.

Main features of CIRC:

Grouping and Teaming: Students are assigned to pairs or triads within their reading groups, then each pair is teamed with a pair from a different reading group. With this approach, students of varying reading abilities work together in teams, including mainstreamed, academically handicapped and Title I students.

Basal-related Activities: CIRC learning activities consist of three principle elements: (1) direct instruction in reading comprehension, (2) story-related activities and (3) integrated language arts/writing.

Tests: At the end of approximately three class periods, students are given a comprehensive test on the story they just completed, a test on writing meaningful sentences for certain vocabulary words and a test of their oral reading. These tests and evaluations contribute to the weekly criterion used to gauge individual and team performance.

Other Elements of CIRC: Students are required to read a book of their choice at home and complete a book report every two weeks.

BCIRC Modifications: The Spanish-adapted CIRC model begins with Spanish language reading assignments, then moves to transitional reading materials in English. A few other adjustments have been made to the CIRC program based on research of effective bilingual practice.

Evidence of Effectiveness:

Summary of Evidence:

Several studies indicate CIRC is an effective program to increase reading and writing skills and that CIRC students consistently outperform control groups on standardized tests of reading achievement. The bilingual version of CIRC has been shown to be effective in raising reading achievement of students moving from Spanish- to English-language reading and instruction, and these effects appear to be cumulative. In addition, one study indicated CIRC can be an effective way to mainstream special education students into regular classrooms.

Discussion of Evidence:

Impact on student results:

Evaluations on CIRC include the following:

1. A 1994 study (Bramlett) studied CIRC's impact with 194 students in 3rd grade and 198 control group students, measured by California Achievement Test (CAT) reading scores. The study sought to determine CIRC's effects on reading achievement across different achievement levels (low, middle and high) of students in eight rural school districts. CIRC's writing component was not included in the study. As a whole, the CIRC group made greater gains than the control group on reading comprehension, but not on vocabulary, word analysis or total reading. CIRC students in the lower reading level significantly outperformed the control group on vocabulary, word analysis and total reading; reading comprehension was significant, but slightly less so. Significant differences were not found between middle and upper groups and their respective control groups. Teacher ratings of CIRC also were measured, which revealed a strong liking for CIRC and continued use of the program by a majority of teachers after the study ended.
2. The developed conducted two studies to evaluate CIRC's effectiveness (Stevens et al. 1987). The initial 12-week study used California Achievement Test (CAT) reading scores and other writing samples to determine CIRC's effects on 461 students in grades 3 and 4. Students were divided into CIRC groups and control groups which received traditional reading instruction, language arts programs and writing programs. The second study evaluated CIRC over a full school year with 450 students in 3rd and 4th grades. Using the CAT, Durrell Analysis of Reading Difficulty and writing samples, achievement of CIRC students was compared with control groups in 13 classes. Both studies supported CIRC's effectiveness in producing significantly better reading and language achievement compared to the control groups. In the first study, statistically significant differences favoring the CIRC students were found on reading comprehension, reading vocabulary, language expression and spelling, but not on language mechanics. In the second study, CIRC students significantly outperformed the control group on reading comprehension, language expression and language mechanisms, but not on measures of vocabulary. Significant effects on the informal reading inventories, such as reading fluency, provide strong support for the partner reading and partner word-practice activities used in CIRC. Both studies included mainstreamed special education and remedial reading students. In Study 2, effects on reading vocabulary and reading comprehension were significant and substantial for the special education students. Results for remedial students were similar, with significant effects on reading comprehension, language mechanics and language expression. Furthermore, substantial effects on oral reading measures for the lowest third of each class confirm CIRC's effectiveness for low-ability readers. No significant effects were found for these groups in Study 1.
3. A 1989 study (Stevens, et al) extended previous research on CIRC's effectiveness and expanded the program into 2nd, 5th and 6th grades. The study included 529 students in grades 2-6 in 29 classes. Control-group students received traditional teaching methods and curriculum for reading, language arts

and writing. Pretest and post-test scores from the California Achievement Test (CAT) Reading and Total Language were used to measure achievement gains.

Post-tests revealed that CIRC students outscored the control group on reading vocabulary, reading comprehension and language mechanics, but there was no significant difference on language expression scores.

Data for 6th graders showed little or no difference between the CIRC and control groups.

CIRC students consistently attained grade equivalent averages above that of control groups.

Special education students, who were mainstreamed for inclusion in the study, performed significantly better than their nonmainstreamed peers on reading vocabulary and reading comprehension, but not on language mechanics or expression.

Students developed better peer relations using CIRC, which is consistent with research on cooperative learning approaches.

4. A 1997 study (Calderon, et al) in El Paso, Texas, compared students in bilingual programs in three experimental and four control schools.

BCIRC students outscored the control group on standardized tests of reading achievement.

Students with one year of BCIRC outperformed the control groups (effect size advantage of +.33), and these gains were significantly greater when students had participated in BCIRC for two years (effect size advantage of +.87), indicating the program's strong cumulative effect.

Third-grade students in BCIRC were three times more likely to meet the district's criteria for leaving bilingual reading and language education than the control group.

Nine of the 12 BCIRC classes contained students who ranked first, second or third on schoolwide writing contests, indicating that these bilingual students were outperforming their peers in regular English classes (AFT, 1998).

Professional Development and Support:

A two-day professional development workshop is required for teachers who will use CIRC, or at least two teachers per school so they can provide support for implementing CIRC. The workshop is conducted by CIRC trainers at Johns Hopkins or by designated trainers. The developer strongly encourages school principals and other administrators to participate so they understand the teaching method and the support necessary for successful implementation. Follow-up support is provided through trainer visits to the school to help implement and facilitate CIRC's use. In addition, contact is maintained through telephone and e-mail (Slaven et al, 1995; NWREL, 1998; AFT, 1998).

Local networks exist in some districts and regions to support the use of CIRC, and national cooperative learning networks have also been established (NWREL, 1998).

Implementation:

School staff must receive training for CIRC, and materials are not available without participating in training workshops. Videos and simulations are available to entire schools or individual teachers so they can better understand CIRC before they decide to adopt the program. As part of follow-up visits, trainers use an implementation checklist and personal observations to review CIRC's implementation (NWREL, 1998).

Costs:

For a school with 500 students in grades 2-6, the total first-year implementation costs for CIRC are approximately \$6,500. The daily cost of training is \$600-800, plus expenses, for each trainer. Two days of training are required, and groups of up to 50 can be accommodated in a training workshop. For the first year of implementation, materials are approximately \$240 per class, which drops to about \$100 per class during subsequent years. Costs for follow-up training are negotiable. These estimates do not include expenses for basal readers or trade books, which the school is expected to possess (AFT, 1998; NWREL, 1998).

Considerations:

CIRC is not a beginning reading program. It is designed to begin in 2nd grade, after students have acquired basic decoding skills. Teachers must be open to the use of cooperative learning in their classroom, which might require changing teaching methods. Classroom management and organizational practices might need to change as well to accommodate the student teams and pairs that are central to CIRC. Most likely, these changes will require initial and ongoing professional development. Additionally, students might need time and guidance to adjust effectively to working cooperatively with peers (AFT, 1998; NWREL, 1998).

Contact Information:

CIRC Program
Center for Social Organization of Schools
3505 N. Charles Street
Baltimore, MD 21218
1-800-548-4998
www.successforall.com

Policy Issues and Questions:

How can states help districts and schools choose the most appropriate reading programs to improve students' skills and performance? What information and assistance would be useful?
Should states promote particular reading programs for districts and schools to use?
How can a reading program's track record be checked and validated?
What criteria should states and districts use to invest in various reading programs initially and for the long-term?
How should policymakers weigh the benefits of a reading program versus its cost and required resources? Can a balance be struck between effectiveness and efficiency?
What state policies can help improve teacher training and professional development so teachers are better equipped to help all students read successfully?

Resources:

American Federation of Teachers (1998). *Building on the Best. Learning from What Works: Seven Promising Reading and English Language Arts Programs*. Washington, DC: AFT.

Bramlett, Ronald K. (1994). "Implementing Cooperative Learning: A Field Study Evaluating Issues for School-Based Consultants." *Journal of School Psychology*, vol. 32, no. 1, pp. 67-84.

Northwest Regional Educational Laboratory (1998). *Catalog of School Reform Models: First Edition*. Portland, OR: Northwest Regional Educational Laboratory.

Stevens, Robert J.; Madden, Nancy A.; Slavin, Robert E.; and Farnish, Anna Marie (1987, March). *Cooperative Integrated Reading and Composition: Two Field Experiments*. Report No. 10. Baltimore, MD: Center for Research on Elementary and Middle Schools, Johns Hopkins University.

Stevens, Robert J.; Slavin, Robert E.; and Farnish, Ann Marie (1989, November). *A Cooperative Learning Approach to Elementary Reading and Writing Instruction: Long-Term Effects*. Report No. 42. Baltimore, MD: Center for Research on Elementary and Middle Schools, Johns Hopkins University.

Texas Center for Educational Research (1997). *Reading Programs for Students in the Lower Elementary Grades: What Does the Research Say?* Austin, TX: TCER.

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